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EXAMINER

SOLOMON, LISA

ART UNIT PAPER NUMBER

2861

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,311

Applicant(s)

JUVE ET AL.

Examiner

Lisa M. Solomon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 8-11, 13, 21-23, 26 and 28-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 14-19, 31, 32, 35 and 36 is/are rejected.
- 7) ☒ Claim(s) 12, 20, 24, 25, 27, 33 and 34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

In regards to applicant's traversal of claim 1 and its dependent claims 2-5, on the grounds that no *prima facie* case of obviousness was established by the office "at least because the applied references do not teach or suggest all of Applicant's limitations", the office respectfully disagrees with this assessment of the rejection made under 35 USC 103. In the office action the office, explains that Cornell and Mulay do not teach the limitation "analyzes an upcoming print swath" and thus were not used to teach that limitation. Cornell was used to teach all of the limitations in claim 1, except the above-mentioned limitation. Mulay was used to teach the selection criteria based upon the type of medium to receive ink dispensed from the printhead, as recited in claim 3.

However, Giere teaches a temperature controller that includes a logic mapping system that analyzes input data, which includes information about the print job (predefined selection criteria) and defines the image to be printed as a pattern of individual dots printed at particular locations of an array defined from the printing medium [Column 2 lines 47-49, Column 6 lines 21-33]. Furthermore, Giere teaches that this printing data is indicative of which ink ejection chambers will be fired and when they will be fired [Column 6 lines 40-46].

In addition, Giere did not teach the limitation "supply the pre-warming signal to one or more heater elements of only the portions required to eject ink to print the swath

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in accordance with the predefined selection criteria” and thus was not used to teach that limitation. Cornell teaches a pre-warming signal to one or more heater elements of only the portions required to eject ink to print the swath in accordance with predefined selection criteria [Column 9 lines 36-49].

Contrary to applicant's assertion that there is no motivation to combine or modify the teachings of Cornell and Giere to arrive at applicant's invention as recited in claim 1, motivation to combine was provided in the previous office action.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The cancellation of claims 8-11, 13, 21-23, 26, and 28-30 has been acknowledged.

Allowable Subject Matter

2. The indicated allowability of claims 6-7, 14-15, and 17 is withdrawn in view of the newly discovered reference(s) to Yamada et al. (6,359,701) and Peterson et al. (2003/0137575). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cornell et al. (6,296,350) in view of Giere et al. (6,612,673).

In re claim 1, *Cornell et al. (350')* teaches a printing system comprising: an inkjet printhead (24, Fig. 3) having plural portions (55, Fig. 3) each having an ink-ejecting nozzle (56a, Fig. 3); plural heater elements (52, Fig. 30) each associated with one of said plural portions (55) to pre-warm ink dispensed by the nozzle (56a) of said associated portion in response to a pre-warming signal; and a controller (74, Fig. 15) configured to supply the pre-warming signal to one or more heater elements (52) of only the portions required to eject ink and supply the pre-warming signal to one or more heater elements (52) of only the portions required to eject ink to print the swath in accordance with the predefined selection criteria [Column 2 lines 34-60, Column 8 lines 28-51, Column 9 lines 36-49]. *Cornell et al. (350')* does not teach the controller is configured to analyze an upcoming print swath to determine which of said plural portions are required to eject ink in order to print the swath in accordance with predefined selection criteria.

Giere et al. (673') teaches a controller configured to analyze an upcoming print swath to determine which of said plural portions are required to eject ink in order to print the swath in accordance with a predefined selection criteria [Column 2 lines 47-49, Column 6 lines 21-33 Column 6 lines 40-46].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to a controller taught in Cornell et al. (350') to analyze an upcoming print swath to determine which of said plural portions are required to eject ink in order to print the swath in accordance with a predefined selection criteria as taught by Giere et al. (673') for the purpose of improving ink drop quality [Giere et al. (673') Column 6 lines 47-60].

In re claim 2, *Cornell et al. (350')* teaches each of said plural portions is configured to dispense a different color of ink [Column 2 lines 42-48; 61-Column 3 line 1]. Cornell et al. (350') does not teach the controller is configured to analyze which of said different colors of ink is required for the upcoming print swath.

Giere et al. (673') teaches a controller configured to analyze the different colors of ink required for an upcoming print swath [Column 4 lines 16-25, Column 8 lines 13-25].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to configure the controller taught in Cornell et al. (350') to analyze the different colors of ink required for the next print swath as taught by

Giere et al. (673') for the purposes of effecting ink drop ejection [Giere et al. (673')
Column 8 lines 26-40].

Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Cornell et al. (6,296,350) in view of Yamada et al. (6,359,701) and Peterson et al.
(2003/0137575).

In re claim 3, *Cornell et al. (350')* teaches a printing system according to claim 1.
Cornell et al. (350') does not teach the selection criteria is based upon the type of media
to receive ink dispensed from the printhead.

Yamada et al. (701') teaches the selection criteria is based upon the type of
media to receive ink dispensed from the printhead [Column 1 lines 55-58; 63-Column 2
line 3].

It would have been obvious to one of ordinary skill in the art at the time the
invention was made to be motivated base the selection criteria upon the type of media
to receive ink as taught by Yamada et al. (701') in the printing system taught by Cornell
et al. (350') for the purposes of determining printhead resolution automatically via a host
computer [Yamada et al. (701') Column 1 lines 63-66].

In re claim 4, *Cornell et al. (350')* in combination with *Yamada et al. (701')*
teaches the printing system according to claim 3.

Cornell et al. (350') does not teach one of said plural portions is configured to dispense ink of a first color having a first dye load; another of said plural portions is configured to dispense ink of the first color having a second dye load less than said first dye load; said controller is configured to interpret information to determine the type of media to receive ink dispensed from the printhead; and when a first type of media is determined, said one of said plural portions is selected for printing and not said another of said plural portions.

Yamada et al. (701') teaches said controller is configured to interpret information to determine the type of media to receive ink dispensed from the printhead; and when a first type of media is determined, said one of said plural portions is selected for printing and not said another of said plural portions [Column 84 line 61-Column 16].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to configure the controller taught by Cornell et al. (350') to interpret information to determine the type of media to receive ink dispensed from the printhead and when the media type is determined one of said plural portions is selected for printing and not said another of said plural portions as taught by Yamada et al. (701') for the purposes of controlling the inkjet printer to print pixels that correspond to multi-level image data [Yamada et al. (701') Column 85 lines 1-3].

Peterson et al. (2003/0137575) teaches one of the plural portions is configured to dispense ink of a first color having a first dye load; another of the plural portions is configured to dispense ink of a first color having a second dye load less than said first dye load [Paragraphs 12, 35 and 36].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to dispense ink of a first color having a first dye load from one of the plural portions and another of the plural portions to dispense ink of the first color having a second dye load less than the first dye load as taught by Peterson et al. (2003/0137575) in the printing system taught by the combination of Cornell et al. (350') and Yamada et al. (701') for the purposes of reducing the problems associated with aerodynamic disturbances caused when ink drops are deposited on a printing surface [Peterson et al. (2003/0137575) Paragraph 11].

In re claim 5, *Cornell et al. (350')* in combination with *Yamada et al. (701')* and *Peterson et al. (2003/0137575)* teaches the printing system of claim 4. Cornell et al. (350') and Peterson et al. (2003/0137575) do not teach wherein said first type of media comprises one of plain paper and transparency media.

However, *Yamada et al. (701')* further teaches the first type of media comprises one of plain paper and transparency media [Column 85 lines 3-6].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to provide the first type of media to comprised one of plain paper and transparency media as taught by Yamada et al. (701') in the printing system taught by the combination of Cornell et al. (350'), Yamada et al. (701'), and Peterson et al. (2003/0137575) for the purposes of determining whether to print the target pixel in a multi-level image using a first or second ink [Yamada et al. (701') Column 85 lines 1-5].

In re claim 6, *Cornell et al. (350')* teaches a printing system, comprising: an inkjet printhead (24, Fig. 3) having plural portions (55, Fig. 3) each having an ink-ejecting nozzle (56a, Fig. 3); plural heater elements (52, Fig. 30) each associated with one of said plural portions (55) to pre-warm ink dispensed by the nozzle (52) of said associated portion (55) in response to a pre-warming signal; and a controller (74) configured to generate the pre-warming signal for one or more heater elements (52) based on a selection criteria for generating the pre-warming signal only when the nozzle (56a) of said associated portion (55) is required to eject ink during an upcoming print swath [Column 2 lines 34-60, Column 8 lines 28-51, Column 9 lines 36-49]. *Cornell et al. (350')* does not teach the selection criteria is based upon a desired print quality of a resulting image formed by ink ejection of selected nozzles.

Yamada et al. (701') teaches a selection criteria based on upon a desired print quality of a resulting image formed by ink ejection of selected nozzles [Column 13 lines 52-61].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to provide a selection criteria based on upon a desired print quality of a resulting image formed by ink ejection of selected nozzles as taught by *Yamada et al. (701')* in the printing system taught by *Cornell et al. (350')* for the purpose of executing printing at several print modes and resolutions [Yamada et al. (701') Column 13 lines 52-58].

In re claim 7, *Cornell et al. (350')* in combination with *Yamada et al. (701')* teach the printing system of claim 6. *Cornell et al. (350')* does not teach a first selection provides a first print quality, and a second selection provides a second print quality less than said first print quality; one of said plural portions is configured to dispense ink of a first color having a first dye load, and another of said plural portions is configured to dispense ink of the first color having a second dye load less than said first dye load; each portion comprises two groups of nozzles which dispense a single color of ink; when printing under the first selection, ink is dispensed from both of said one and said another of said plural portions and from said two groups of nozzles thereof; and when printing under the second selection, ink is dispensed from only one of said two groups of nozzles per portion of the printhead.

Yamada et al. (701') further teaches a first selection provides a first print quality, and a second selection provides a second print quality less than said first print quality [Column 2 lines 15-29].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to provide for the first selection to include a first print quality and a second selection to include a second print quality less than the first print quality as taught by *Yamada et al. (701')* in the printing system taught by the combination of *Cornell et al. (350')* and *Yamada et al. (701')* for the purposes of controlling the print resolution of two printheads independently [*Yamada et al. (701')* Column 2 lines 15-20].

Peterson et al. (2003/0137575) teaches one of said plural portions is configured to dispense ink of a first color having a first dye load, and another of said plural portions is configured to dispense ink of the first color having a second dye load less than said first dye load; each portion comprises two groups of nozzles which dispense a single color of ink; when printing under the first selection, ink is dispensed from both of said one and said another of said plural portions and from said two groups of nozzles thereof; and when printing under the second selection, ink is dispensed from only one of said two groups of nozzles per portion of the printhead [Paragraphs 12, 35, 35, and Paragraph 23 lines 5-19].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to dispense ink of a first color having a first dye load from one of the plural portions and another of the plural portions to dispense ink of the first color having a second dye load less than the first dye load, to dispense ink from both of said one and said another of the plural portions when printing under a first selection, and dispense ink from only one of the two groups of nozzles per portion of the printhead when printing under the second selection as taught by Peterson et al. (2003/0137575) in the printing system taught by the combination of Cornell et al. (350') and Yamada et al. (701') for the purposes of reducing the problems associated with aerodynamic disturbances caused when ink drops are deposited on a printing surface [Peterson et al. (2003/0137575) Paragraph 11].

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Giere et al. (6,612,673) in view of Cornell et al. (6,296,350).

In re claim 14, *Giere et al. (673')* teaches a method of pre-warming a multi-color inkjet printhead having plural portions dispensing ink, comprising: analyzing an upcoming print swath; determining from said analyzing which of said plural portions are a dispensing portion required to dispense ink, and which of said plural portions are a non-dispensing portion not required to dispense ink during printing of said upcoming print swath; wherein said first plural portion to receive the pre-warming signal comprises the dispensing portion; and wherein said second portion to receive no pre-warming signal comprises the non-dispensing portion [Column 6 lines 22-46]. *Giere et al. (673')* does not teach generating a pre-warming signal for said dispensing portion; pre-warming said dispensing portion in response to the pre-warming signal; and omitting generation of a pre-warming signal for said non-dispensing portion to produce no pre-warming thereof.

Cornell et al. (350') teaches generating a pre-warming signal for said dispensing portion; pre-warming said dispensing portion in response to the pre-warming signal; and omitting generation of a pre-warming signal for said non-dispensing portion to produce no pre-warming thereof [Abstract lines 7-9, Column 9 lines 37-51].

It would have been obvious to one of ordinary skill in the art at the time invention was made to be motivated to generate a pre-warming signal for the dispensing portion,

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pre-warming the dispensing portion in response to the pre-warming signal, and omitting the generation of a pre-warming signal for the non-dispensing portion as taught by Cornell et al. (350') in the method taught by Giere et al. (673') for the purposes of preventing the diversion of ink droplets from their intended straight-line paths by ink collected on the outer surface of the printhead [Giere et al. (673') column 1 lines 39-41; 43-46; 49-56].

Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (6,359,701) in view of Cornell et al. (6,296,350).

In re claim 15, *Yamada et al. (701')* teaches a method of pre-warming a multi-color inkjet printhead having plural portions dispensing ink, comprising: determining a type of media upon which an image is to be printed; and in response to said determining, selecting which of said plural portions are a dispensing portion required to dispense ink, and which of said plural portions are a non-dispensing portion not required to dispense ink during printing upon said determined type of media [Col. 12 lines 33-44; Col. 85 lines 17-36]. *Yamada et al. (701')* does not teach generating a pre-warming signal for said dispensing portion; pre-warming said dispensing portion in response to the pre-warming signal; and omitting generation of a pre-warming signal for said non-dispensing portion to produce no pre-warming thereof.

Cornell et al. (673') teaches generating a pre-warming signal for said dispensing portion; pre-warming said dispensing portion in response to the pre-warming signal; and

omitting generation of a pre-warming signal for said non-dispensing portion to produce no pre-warming thereof [Abstract lines 7-9, Column 9 lines 37-51].

It would have been obvious to one of ordinary skill in the art at the time invention was made to be motivated to generate a pre-warming signal for the dispensing portion, pre-warming the dispensing portion in response to the pre-warming signal, and omitting the generation of a pre-warming signal for the non-dispensing portion as taught by Cornell et al. (350') in the method taught by Giere et al. (673') for the purposes of preventing the diversion of ink droplets from their intended straight-line paths by ink collected on the outer surface of the printhead [Giere et al. (673') column 1 lines 39-41; 43-46; 49-56].

In re claim 17, *Yamada et al. (701')* teaches a method of pre-warming a multi-color inkjet printhead having plural portions dispensing ink, comprising: determining a print quality for printing an upcoming image; in response to said determining, selecting which of said plural portions are a dispensing portion required to dispense ink, and which of said plural portions are a non-dispensing portion not required to dispense ink during printing of said upcoming image [Column 2 lines 21-36]. Yamada does not teach generating a pre-warming signal for said dispensing portion; pre-warming said dispensing portion in response to the pre-warming signal; and omitting generation of a pre-warming signal for said non-dispensing portion to produce no pre-warming thereof.

Cornell et al. (673') teaches generating a pre-warming signal for said dispensing portion; pre-warming said dispensing portion in response to the pre-warming signal; and

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omitting generation of a pre-warming signal for said non-dispensing portion to produce no pre-warming thereof [Abstract lines 7-9, Column 9 lines 37-51].

It would have been obvious to one of ordinary skill in the art at the time invention was made to be motivated to generate a pre-warming signal for the dispensing portion, pre-warming the dispensing portion in response to the pre-warming signal, and omitting the generation of a pre-warming signal for the non-dispensing portion as taught by Cornell et al. (350') in the method taught by Giere et al. (673') for the purposes of preventing the diversion of ink droplets from their intended straight-line paths by ink collected on the outer surface of the printhead [Giere et al. (673') column 1 lines 39-41; 43-46; 49-56].

Claims 16, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giere et al. (6,612,673) in view of Cornell et al. (6,296,350) as applied to claim 14 above, and further in view of Silverbrook (6,634,735).

In re claim 16, *Giere et al. (673') in combination with Cornell et al. (350')* teach the method of pre-warming a multi-color inkjet printhead having plural portions dispensing ink of claim 14. Giere et al. (673') and Cornell et al. (350') do not teach the method further comprising: monitoring the temperature of each of said plural portions; and wherein said generating of said pre-warming signal and said omitting generation of a pre-warming signal are conducted in response to said monitoring.

Silverbrook (735') teaches monitoring the temperature of each of said plural portions; and wherein said generating of said pre-warming signal and said omitting generation of a pre-warming signal are conducted in response to said monitoring [Column 3 lines 11-16, Column 9 lines 18-23; 37-43].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to monitor the temperature of each of the plural portions and determine whether to generate pre-warming signals or generate pre-warming signals in response to the monitoring taught by Silverbrook (735') in the method taught by Giere et al. (673') in combination with Cornell et al. (350') for the purposes of providing operating conditions necessary for printing [Silverbrook (735') Column 9 lines 9-23].

In re claim 18, *Giere et al. (673')* in combination with *Cornell et al. (350')* teach the method of pre-warming a multi-color inkjet printhead having plural portions dispensing ink of claim 14. Giere et al. (673') and Cornell et al. (350') do not teach the method further comprising: beginning printing of a print swath; and ceasing generation of the pre-warming signal upon said beginning.

Silverbrook (735') teaches beginning printing of a print swath; and ceasing generation of the pre-warming signal upon said beginning [Column 8 lines 51-59].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to begin printing of a print swath and cease generation of the pre-warming signal upon said beginning taught in Silverbrook (735') in

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the method taught by Giere et al. (673') in combination with Cornell et al. (350') for the purposes of controlling the temperature of an inkjet printhead to be in a predetermined bound [Silverbrook (735') Column 8 lines 47-51].

In re claim 19, *Giere et al. (673') in combination with Cornell et al. (350')* teach the method of pre-warming a multi-color inkjet printhead having plural portions dispensing ink of claim 14. *Giere et al. (673')* and *Cornell et al. (350')* do not teach the method further comprising: printing a print swath from a beginning point to an ending point; continuing generation of the pre-warming signal after printing from the beginning point; monitoring printing temperature of each of said plural portions during said printing; and ceasing to generate the pre-warming signal when the printing temperature exceeds a threshold temperature before printing to the ending point.

Silverbrook (735') teaches printing a print swath from a beginning point to an ending point; continuing generation of the pre-warming signal after printing from the beginning point; monitoring printing temperature of each of said plural portions during said printing; and ceasing to generate the pre-warming signal when the printing temperature exceeds a threshold temperature before printing to the ending point [Column 8 lines 51-59, Column 9 lines 9-23].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to print a print swath from beginning to end; continue generation of pre-warming signal after printing has begun; monitor temperature; and cease to generate the pre-warming signal when printing temperature

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exceeds threshold temperature taught by Silverbrook (735') in the method taught by Giere et al. (673') in combination with Cornell et al. (350') for the purposes of providing operating conditions necessary for printing [Silverbrook (735' Column 9 lines 9-23] and controlling the temperature of an inkjet printhead to be in a predetermined bound [Silverbrook (735') Column 8 lines 47-51].

Claims 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cornell et al. (6,296,350) in view of Giere et al. (6,612,673) and in view of Yamada et al. (6,359,701).

In re claim 31, *Cornell et al. (350')* and *Giere et al. (673')* teach the printing system of claim 1. Cornell et al. (350') and Giere et al. (673) do not teach the selection criteria is derived at least in part from a parameter specified by a user of the printing system, the parameter different from the print data.

Yamada et al. (701') teaches the selection criteria is derived at least in part from a parameter specified by a user of the printing system, the parameter different from the print data [Column 1 lines 63-65, Column 2 lines 36-41].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to provide a user specified parameter different from the print data to comprise part of the selection criteria taught by Yamada et al. (701') in the printing system taught by Cornell et al. (350') in combination with Giere et al. (673)

for the purposes of allowing the user to designate different resolutions for text and non-text [Yamada et al. (701') Column 2 lines 39-41].

In re claim 32, *Cornell et al. (350')* and *Giere et al. (673')* teach the printing system of claim 1. *Cornell et al. (350')* and *Giere et al. (673')* do not teach the selection criteria comprise at least two selection criteria.

Yamada et al. (701') teaches the selection criteria comprise at least two selection criteria [Column 1 line 63-Column 2 line 3].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to provide the selection criteria to comprise at least two selection criteria taught by *Yamada et al. (701')* in the printing system taught by *Cornell et al. (350')* in combination with *Giere et al. (673')* for the purposes of automatic printhead resolution determination [Yamada et al. (701') Column 1 line 66-Column 2 line 3].

Claims 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Cornell et al. (6,296,350)* in view of *Giere et al. (6,612,673)*.

In re claim 35, *Cornell et al. (350')* and *Giere et al. (673')* teach the printing system of claim 1. *Cornell et al. (350')* teaches each plural portion has a plurality of ink-ejecting nozzles [Column 2 lines 42-48; 53-55; 57-60; 61-66]. *Giere et al. (673')* does not teach each plural portion has a plurality of ink-ejecting nozzles.

In re claim 36, *Cornell et al. (350')* and *Giere et al. (673')* teach the printing system of claim 1. *Cornell et al. (350')* teaches each plural portion defines a linear array of ink-ejecting nozzles [See Fig. 3 and Fig. 5]. *Giere et al. (673')* does not teach each plural portion defines a linear array of ink-ejecting nozzles.

Allowable Subject Matter

5. Claims 12, 20, 24-25, 27, and 33-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claims 12, 20, 24-25, and 27 are still allowable for the reasons set forth in the previous office action.

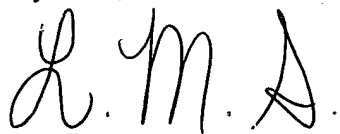
The following is a statement of reasons for the indication of allowable subject matter: In re claims 33-34, the prior art does not disclose or suggest the claimed "the selection criteria specifies a subset of the particular plural portions to be used to print the swath" as set forth in claim 33 and the claimed " the selection criteria specifies an event after which the controller stops supplying the pre-warming signal to the heater elements of the portions required to eject the ink to print the swath" as set forth in claim 34.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa M. Solomon whose telephone number is (571) 272-1701. The examiner can normally be reached on 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vip Patel can be reached on (571) 272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Lisa M. Solomon
Patent Examiner
10/6/2006



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